

ANON. N.

Interference appearances in Fresnel's mirrors which have been solved (cont.). In German.

p. 43 (Glasnik Matematičko-Fizički I /astrofiziki. Periodično matematičko-fizičko
Et Astronomicum. Vol. 11, no. 1, 1958. Zagreb, Jugoslavija)

Monthly Index of East European Accessions (GEA) 16, vol. 7, no. 2,
February 1958

HASSEN, H.

What has brought the discussion in the chemical industry? p. 250.

PRZEMYSŁ CHEMICZNY. Ministerstwo Przemysłu Chemicznego i Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Przemysłu Chemicznego. Warszawa, Poland, Vol. 38, No. 4, 1959.

Monthly List of East European Accessions (EEA1), IC, Vol. 8, No. 9, September, 1959.
Uncl.

DEREN, J.; HABER, J.; SLOCZYNSKI, J.

Influence of the mode of preparation of nickel oxide on its chemical and electric properties. Bul chim PAN 9 no.4:245-252 '61

1. Laboratory of Physicochemical Surface Phenomena, Institute of Physical Chemistry, Polish Academy of Sciences and Department of Inorganic Chemistry, School of Mining and Metallurgy, Cracow.
Presented by B. Kamienski.

(Nickel oxides)

DEREN, J.; HABER, J.; WILKOWA, T.

The influence of oxygen on the electric conductivity and catalytic activity of nickel oxide. Bul chim PAN 8 no.7:399-404 '60.
(EEAI 10:9/10)

1. Laboratory of Surface Phenomena, Institute of Physical Chemistry, Polish Academy of Sciences and Department of Inorganic Chemistry, School of Mining and Metallurgy, Cracow. Presented by B. Kamienski.

(Oxygen)	(Electric conductivity)	(Catalysis)
	(Nickel oxide)	

Distr: 4E3d

✓ Electric conductivity of the NiO-catalyst during the oxidation of CO to CO₂. A. Bielański, J. Dered, J. Haber, and J. Słoczyński (Akad. Berg u. Hüttenwesen, Kraków, Poland). Z. physik. Chem. (Frankfurt) 24, 345-58 (1963). — Alterations of the elec. cond. of the p-semiconducting NiO catalyst during the catalytic oxidn. of CO at 150-300° were examd. and the kinetics of the reaction were studied. The observed alterations of the cond. of the catalyst and the activation energy of the process depend on the compn. of the reacting CO/O₂ mist. With an excess of O the reaction proceeds according to $\text{CO}_{\text{gas}} + \frac{1}{2} \text{O}_{2 \text{ ads.}} = \text{CO}_{2 \text{ gas}}$. At O deficiency a stepwise desorption of O and adsorption of CO occurred. The kinetics of the oxidn. can be expressed in terms of the Roginskii-Zel'dovich equation (CA 29, 7778¹). Friedrich Epstein

7
1-BW(BW)
1-Jaf(NB)
1

HABER, J.

21 21
 (Electrical conductivity of zinc oxide, Jerzy Deren, Jerzy
 Haber, and Teresa Wilkowska (Mineral Acad., Krakow
 Poland). Z. Physik 133, 463-84 (1959); cf. C.A. 52, 15991c.
 6
 The elec. cond. of pressed tablets of polycryst. ZnO was
 measured between 100 and 700° under various O pressures.
 The cond. changes above 450° are governed by the changes
 in the equil. of the O chemisorption on the surface of the
 ZnO. At 450° the velocity of the chemisorption reaction
 becomes 0. Therefore, the surface equil. is frozen in at
 lower temps. and the temp. dependence of the cond. then
 corresponds to the activation of the donors. As a conse-
 quence of the potential gradient in the surface layer, inter-
 stitial Zn atoms can diffuse to the surface at room temp.
 and build up the lattice. This process is the reason for the
 irreversible changes in cond. between 20 and 450°. It thus
 follows that the electronic properties of polycryst. ZnO de-
 pend strongly on the surrounding atm. Rudolf Nitsche...
 81 KR

BIELANSKI, A.; DEREN, J.; HABER, J.

On the mechanism of the catalytic dehydrogenation of alcohols on nickel oxide. Bul Ac Pol chim 7 no.5:345-353 '59. (EEAI 9:9)

1. Laboratory of Surface Phenomena, Cracow, Institute of Physical Chemistry, Polish Academy of Sciences. Presented by B.Kamienski.
(Nickel oxides) (Catalysts) (Isopropyl alcohol)
(Dehydrogenation) (Acetone) (Ethyl alcohol)
(Acetaldehyde)

BIELANSKI, A.; DEREN, J.; HABER, J.; WILKOWA, T.

The electroconductivity of NiO catalysts in the course of dehydrogenation of aliphatic alcohols. Bul Ac Pol chim 7 no.5:339-343 '59.

(EEAI 9:9)

1. Laboratory of Surface Phenomena, Institute of Physical Chemistry, Polish Academy of Sciences and Department of Inorganic Chemistry, School of Mining and Metallurgy, Cracow. Presented by B.Kamienski.

(Nickel oxides) (Catalysts) (Electric conductivity)

(Methanol) (Dehydrogenation) (Ethyl alcohol)

(Isopropyl alcohol) (Butyl alcohol) (Acetone)

POL.IND/Electricity - Semiconductors

G-3

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 8555

Author : Daren J., Haber J.
Inst : Institute of Physical Chemistry, Polish Academy of Sciences,
Krakow, Poland
Title : Chemisorption of Oxygen and Electric Conductivity of ZnO.

Orig Pub : Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr.,
1958, 6, No 4, 251-256, XIX

Abstract : An explanation is proposed for the electric properties of ZnO. The properties of ZnO at temperatures below 700° C are due above all to electronic processes in the surface layers of the crystallites, on which chemisorption of oxygen takes place. The change in the equilibrium state of chemisorption, and also the processes that take place in the surface layer, namely the diffusion of the zinc ions and the superstructures that add on to the lattice, are the causes of the irreversible changes in the conductivity, observed in

Card : 1/1 the temperature region from 20 to 450°C. -- Author's

POLAND/Electricity - Semiconductors

G-3

Abstr Jour : Ref Zhur - Fizika, No 4, 1959, No 6041

Author : Deren J., Haber J., Wilkova T.

Inst : Krakow, Poland - *Wydział Fizyki i Matematyki*

Title : An Investigation of the Electric Conductivity of Zinc Oxide

Orig Pub : Bull. Acad. polon. sci. Ser. sci. Chim., geol. et geogr., 1958,
6, No 4, 245-249, XIX

Abstract : A study was made of the electric conductivity (σ) of specimens of ZnO prepared in various manners, as functions of the temperature and gas atmosphere. Measurements of σ were carried out with the aid of a linear bridge and amplifier at 50 cycles per second. For the purpose of verification the σ of many specimens was measured by the Miller method at frequencies up to 160 kcs. It was established that when the specimens are heated to a temperature of 1000° C the frequency dependence of σ disappears.

If the measurements of σ at increased temperature follow directly the cooling of the specimen, then the curve in $\sigma = f(1/T)$ at two straight-line sections with activation energy

Card : 1/2

J. HABER, J.

Distr: LR3c

27

Type of semiconductor of α -Ag₂S resulting during the sulfurization of silver. J. Deren, J. Haber, S. Mrowca, and F. Werber (Acad. Krakow, Poland). *Naturwissenschaften* 45, 181 (1958).—After the sulfurization of Ag by liquid S two zone boundaries Ag₂S/Ag and Ag₂S/S liquid can be observed. Both zones are n-type semiconductors. Excess S in the neighborhood of the phase boundary Ag₂S/S is present in form of atoms or moles. F. Schossberger

7
1

DR RB MR

POLAND / Physical Chemistry. Kinetics. Combustion. B
Explosions. Topochemistry. Catalysis.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56793.

Abstract: 450°C. The reduced catalyzer manifests a very low catalytic activity and high electric resistance. It was demonstrated that, the previously found (RZhKh, 1957, 53997) connection between the reaction yield and ($1/\lg \xi$) remains linear not only at the variation of the temperature, but also at the variation of the mixture composition of the alcohol and water vapors.

POLAND / Physical Chemistry. Kinetics. Combustion. B
Explosions. Topochemistry. Catalysis.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56793.

Abstract: ductivity with temperature in an interval of 100 - 500°C. The reaction yield and the variation of the conductivity logarithm ($\lg \sigma$) under the action of the ethyl alcohol vapor mixtures and the H₂O of the permanent composition, also, do not depend on the temperature in the interval of 200 - 300°C. According to the authors, the above facts are in full agreement with the viewpoint that, the quantity of current carriers in the catalyzer affect, before the start of reaction, the absorption equilibria established on its surface, as well as the reaction yield. The reduction of CdO and a subsequent evaporation of the metallic Cd take place at

Card 2/3

HABER, J.

POLAND / Physical Chemistry. Kinetics. Combustion. B
Explosions. Topochemistry. Catalysis.

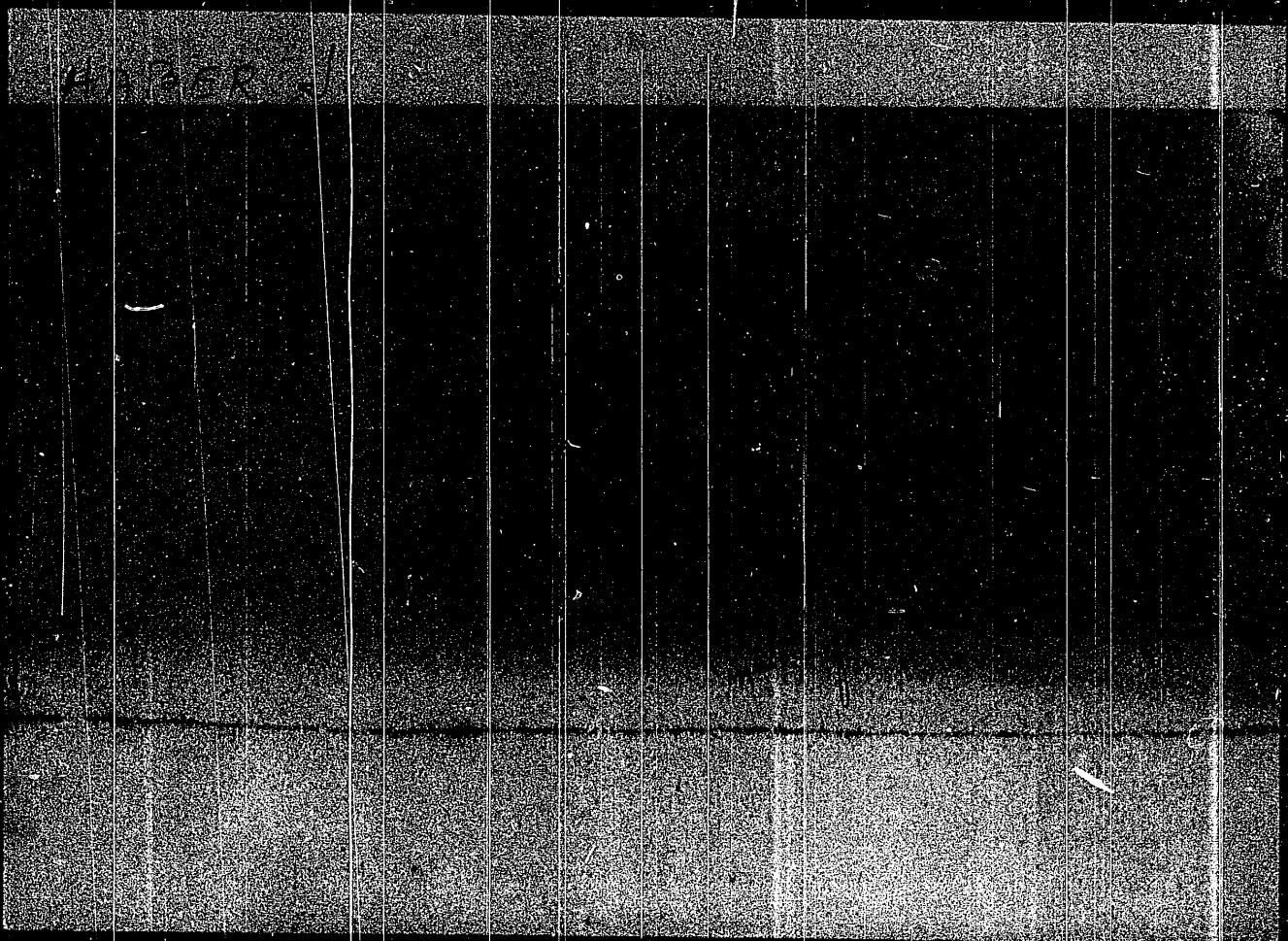
Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56793.

Author : Bielanski A, Deren J., Haber J., Wilkova T.
Inst : Not given.
Title : The Electric Conductivity and Catalytic Act-
ivity of MgO - CdO Mixed Catalyzers.

Orig Pub: Bull. Acad. Polon. sci., 1957, CL 3, 5,
No 6, 673 - 678.

Abstract: The dehydrogenation of ethyl alcohol on a mixed
catalyzer CdO - MgO (ratio 1:1.7 was investigat-
ed. Electric conductivity measurements were
carried out at the same time, after an initial
heating in air up to 500°C. The catalyzer does
not develop any variations of the electric con-

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800047-6



HABER, J.

POLAND/Electricity - Semiconductors

C-3

Abs Jour : Ref Zhur .. Fizika, No 4, 1958, No 8621

Author : Bielanski A., Daren, J., ~~Haber, J.~~ Wilkova T.

Inst : University for Physical Chemistry, Polish Academy of Sciences, Poland.

Title : The Electric Conductivity of NiO Catalyst in the Course of Ethyl Alcohol Dehydrogenation.

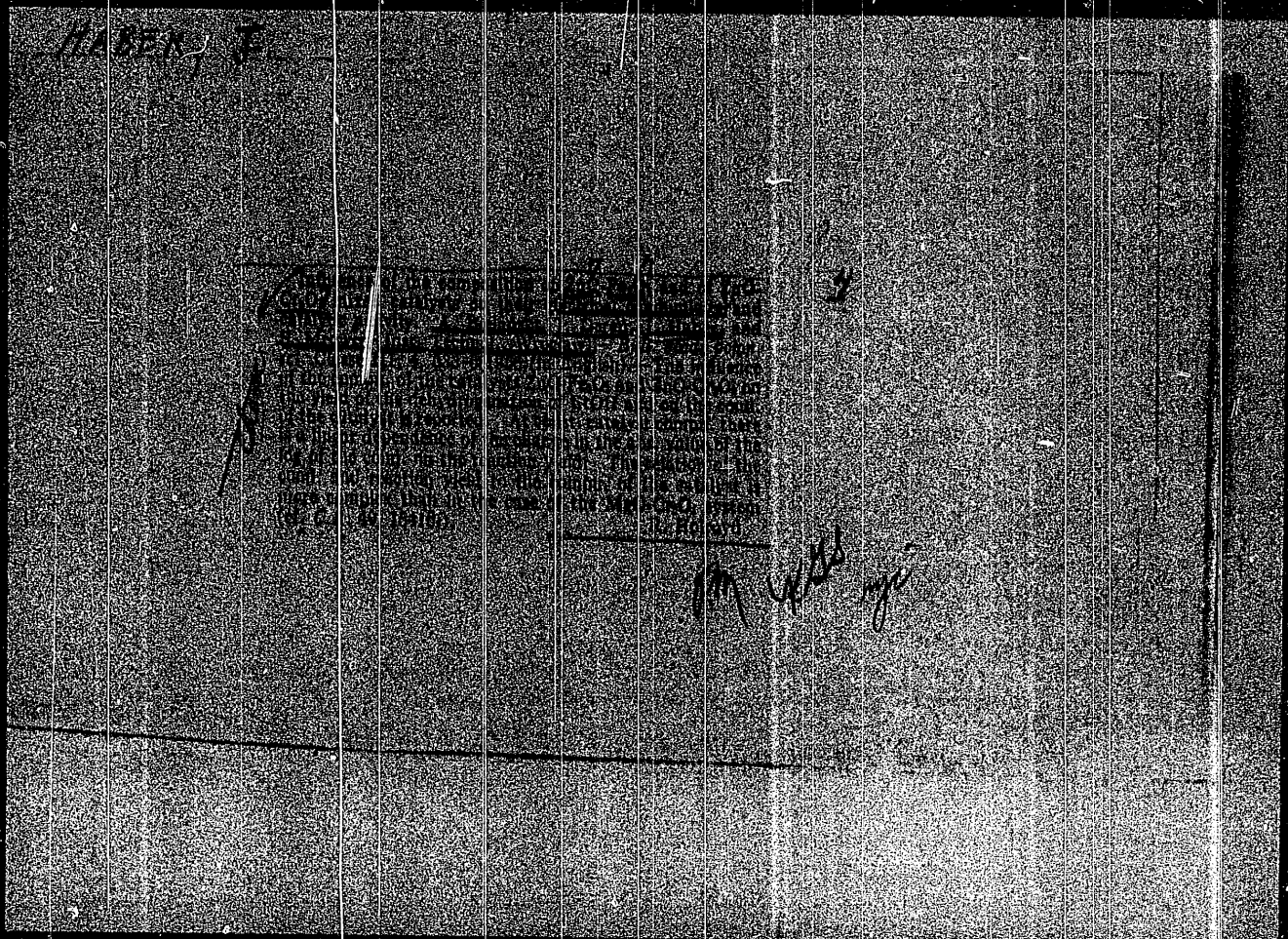
Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 2, 197-202, XVII

Abstract : An investigation is made of the change in the electric conductivity (σ) of a NiO catalyst in the process of reaction of dehydrogenation of ethyl alcohol. It is shown that during the course of the reaction, σ diminishes to a certain stationary value (σ_+). It is concluded hence that in the reaction there occurs on the surface of the NiO adsorption of the donor molecules.

In the temperature region of 200 to 300°C, there exists a linear relation between the yield of the reaction and $\sqrt{\log (\sigma_0/\sigma_+)}$ (σ_0 is the conductivity at the instant when the reagents are introduced).

Card : 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800047-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800047-6

HABER, Jerzy

Distr: HE20

Investigation of exchange reactions in a solid-vapor system by radioactive tracers. I. The system: solid $HgBr_2$ - gaseous Br_2 . Jerzy Dery, Jerzy Haber, Aleksander Halpern, and Andrzej Polach (Acad. Górniczo-Hutnicza, Kraków, Poland). *Zeszyty Nauk. Akad. Górniczo-Hutnicza* No. 8, *Ceramika* No. 1, 13-18 (1986) (English summary).
Radioactive $HgBr_2$ contg. Br^{80} and Br^{82} was equilibrated with gaseous Br_2 at 20-190°. An exchange of $25 \pm 5\%$ of Br atoms was calcd. and found to be independent of temp. This indicated that mainly the surface of the sample was involved.
J. Stecki

de *Qm*

HABER, J.

The electric conductivity and catalytic activity of zinc
oxide-ferrous oxide mixtures. A. Bielanski, J. Deren, and
J. Haber (School Mining Met., Krakow). *Bull. acad. polon.
Sci. Ser. B* 11: 3, No. 4, 223-7 (1955); cf. C.A. 49, 11141c.

pressed between 2 ceramic plates upon which there were 2
Pt electrodes. The upper end of the quartz tube was con-
nected to a glass bulb kept in an oil bath at 130°. An
EtOH-H₂O mixt. was added dropwise to the bulb and per-
mitted to evaporate before adding another drop. The lower
end of the quartz tube was connected to a vacuum pump
through a water-cooled condenser and a freezing condenser.
EtOH, H₂O, and AcH were found in the condensation
products. The latter was detd. by use of hydroxylamine
hydrochloride. Elec. cond. was measured by an alter-
nating-current-bridge method (Lorenz and Klauer, C.A.
48, 3518). Before starting the reaction, the air pres-
sure was reduced to about 1 mm. Hg. Upon introduc-
tion of the water-alc. mixt., the cond. increased sharply.
The process was reversible on reintroduction of the initial
ambient atm. No relation was found between initial cond.
and catalytic activity. A plot of the reaction yield as a
function of temp. followed very closely a plot of the dif-
ferences between the log of the initial cond. and the log
of the cond. at the temp. in question. A local max. was
observed at 460° in both plots with a steady rise occurring
above 550°. The highest reaction yields and also the high-
est log cond. differences were found with a 20% EtOH
(by vol.) mixt. and a nonsintered catalyst. Catalytic
activity decreased with increasing sintering temp.

Harry Letaw, Jr.

②

Haber, J.

POL.

Isotopic exchange of bromine atoms between crystalline Hg₂Br₂ and gaseous bromine. J. Doren, J. Haber, A. Halpern, and A. Polaczek (Jagellonian Univ., Cracow). *Roczniki Chem.* 28, 177-18 (1954) (English summary). The extent of isotopic exchange of Br atoms between crystalline Hg₂Br₂ and gaseous Br was studied by use of radioactive tracers. Pptd. Hg₂Br₂ contg. radioactive Br concd. by the Sillard-Chalmers method was heated to various temps. up to 190° in an atm. of inactive gaseous Br for 1.5 hrs. 20-80% of radioactive Br passed from solid to gaseous phase. The isotopic exchange was not appreciably affected by temp.; this indicated that the exchange mainly occurred on the surface of the sample. Sylvia Nowinska

Handwritten initials or mark.

HABER, M.; BORMAN, H.

From the experience of accounting for equipment in chemical production. p. 494.
(PRZEMYSŁ CHEMICZNY, Vol. 10, No. 9, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

HABER, Judit

"Problems and results in psychology." Vol. 3-4. Reviewed by
Judit Haber. Magyar pszichológiai szemle 20 no.1:157-159 '63.

HABER, Josef, dr.; SIMON, Akos, dr.; HODVAT, Karel, dr.

Haptoglobin level of the blood serum in various phases of
silicosis. Prv. hetil. 106 no. 5:204-206 24 75 1965

1. Pécsi Orvostudományi Egyetem. 1. Belklinika és Ortopédia
Vertebrális Oszteoporosis.

HABER, Jozsef, dr.; SZUNGYI, Zoltan, dr.

Boeck's sarcoidosis repeatedly diagnosed as silicosis. Orv.
hetil. 105 no.30:1421-1422 26 JI'64

1. Pecsí Orvostudományi Egyetem, I. Belklinika és a Barcái
Tudogondozó Intézet.

HABER, Jozsef, dr.; MARTON, Erzsebet, dr.

Arteriosclerosis and tuberculosis. Tuberkulozis 16 no.1:25-28 Ja '63.

1. A Pecsí Orvostudományi Egyetem I. sz. Belklinikája közleménye.
(ARTERIOSCLEROSIS) (TUBERCULOSIS) (AUTOPSY)

HABER, JOSEPH, DR.

DAROCZY, Gyula, Dr.; HABER, Jozsef, Dr.

Hamartochondroma in the lung. Orv. hetil. 99 no.24:828-830 15 June 58.

1. A Pecs Orvostudományi Egyetem I. sz. Sebészeti Klinikájának (igazgató: Schmidt Lajos dr. egyet. tanár) és I. sz. Belklinikájának (igazgató: Angyan János dr. egyet. tanár) közleménye.

(CHONDROMA, case reports
lung (Hun))

(LUNG NEOPLASMS, case reports
chondroma (Hun))

ANGYAN, Janos, dr.,; HABER, Jozsef, dr.

Treatment of tuberculous meningitis in adults. Orv. hetil. 96
no.3:77-79 16 Jan 55.

1. A Pecszi Orvostudományi Egyetem I. sz. Belklinikájának (igazgató:
Angyan Janos dr. egyet tanár közleménye.
(TUBERCULOSIS, MENINGEAL, therapy,
isoniazid with streptomycin)
(STREPTOMYCIN, therapeutic use,
tuberc., meningeal, with isoniazid)
(NICOTINIC ACID ISOMERS, therapeutic use,
isoniazid in meningeal tuberc., with streptomycin)

HABER, Josef

development of electric drying houses in the chemical industry. Chem press 15 no.1 43-44 Jan 1955.

HABER, Josef, inz.

Experiences of the Design Section of the Zavody na vyrobu
vzduchotechnickych zarizeni in the development of continuous
dry kilns with special regard to the chemical industry. Zdravot
tech 7 no.5:217-224 '64.

1. Zavody na vyrobu vzduchotechnickych zarizeni, Prague, Malesice.

HABER, J.

Fight for the priority of air. p. 55.

ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. (Ceskoslovenska akademie ved. Ceskoslovenska vedecka technicka spolecnost pro zdravotni techniku a vzduchotechniku) Praha, Czechoslovakia. Vol. 1, no. 2, 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959. Uncl.

HABER, J.

Purification of waste gases in power plants. [3d supplement] p. 3.

Atomic electric-power plants. Pt. 1. [4th supplement] p. 1.

(Energetika. Vol. 7, no. 3, Mar. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

HABER, J.

New trends in methods of drying, p. 489, STROJIRENSTVI (Ministerstvo strojirenstvi) Praha, Vol. 5, No. 7, July 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

HABER, J.

"Harmonious and Nonharmonious Currents of Gases in Dryers", P. 576,
(STROJIRENSTVI, Vol. 4, No. 8, Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

HABER, JOSEF.

Vybrane stati ze vzduchotechniky. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953.
96 p. (Ucebni texty vysokych skol) [Selected articles on ventilation and heating
by air. Diagr_s.]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, NO. 1, Jan. 1954, Uncl.

HARPER, I.

Present stage and prospects for the future development of plywood industry in
Rumania. p. 403.

INDUSTRIA LEMNULUI. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din
Romania si Ministerul Industriei Lemnului) Bucuresti, Rumania.
Vol. 7, no. 11, 1958.

Monthly List of East European Accessions (EEAL) LG Vol. 4, No. 6, June 1959.
Incl.

HAFER, ALEKSANDER

Zoologia dla leśników. (1. wyd. Warszawa) Państwowe Wydawn. Rolnicze i
Leśne (1956) 794 p. (Zoology for foresters. 1st ed.)

DA

Not in DLC

SO: Monthly List of East European Accessions (EELAL) L6. Vol. 6, No. 10 October. 1957. Uncl.

HABER, A.

Influence of calcium concentration on current-voltage relation.
NOCHUKI 1971 Hab. 10. (Institut für Biophysik und Biophysik
Warsaw Vol. 8, 1971)

So. East European Accessions List Vol. 1, No. 1, 1971, p. 17

HABER, H.

POL.

032.724 : 032.8 : 034.018

Haber, H. *Barbitistes constrictus* Dr. Watt. (Locustidae Grin.)

Opaslik, Stanislaw. *Barbitistes constrictus* Dr. Watt. (Locustidae Grin.). Roczniki Nauk Lesnych, Tom I, 1953, PWN, pp. 71-154, 41 figs., 1 tab.

It has been proved that mass appearance of *Barbitistes constrictus* can occur and cause restriction in the increment of pines, deformation of stems and increased dry branches. To discover methods for combating this pest, observations were conducted in affected regions. Descriptions are given of the morphological changes of the insect, and details concerning its biology with special emphasis on natural enemies. Further, an analysis is given of the fungi species parasitic on *Barbitistes constrictus*, together with other parasitic insects, insects of prey and enemy vertebrates. An attempt is made to compute the losses incurred in forestry as a result of the insect, and suggestions advanced concerning combating it by biological, mechanical and chemical means.

HABER, A.

We fight against noxious insects. p. 39. (LAS POLSKI. Vol. 26, no. 3, Mar. 1952.

SO: Monthly list of East European Accessions, I.C., Vol. 3, No. 4, April, 1954

PABST, Jiri, 1927; M.Ph., Prague, 1951.

Point methods of lighting calculation. El tech abstr 54 no. 1.
Suppl:Prakticka priloha 54 no. 1:11-17 (65.

1. Czech Higher School of Technology, Prague.

HABEL, Jiri, inz.

Problem of the modern lighting of highways. El tech obzor 91 no.12:658-661 D '62.

HABEL, Jiri, inz.

"Course of lighting techniques" by V.V. Meskov and I.I. Sokolov.
Reviewed by Jiri Habel. El tech obzor 51 no.3:141 Mr '62.

HABEL, Gyorgy (Miskolc)

Where are the promised flats? Magy vasut 8 no.7:2 3 Ap '64.

HABEL, Jiri, inz.

"Electric lighting in practice" by [inz.] Milan Chalupka. Reviewed by Jiri Habel. El tech obzor 52 no.12:687-688 D '63.

HABEL, Gyorgy

An interesting publication on the transport system of Miskolc.
Vasut 15 no.1:21 Ja '65.

HABEL, Gyorgy

The training of foremen should be systematic. Nagy vasut 7
no.23:5 2 D '63.

1. Miskolci igazgatóság.

YUGOSLAVIA / Analytical Chemistry. Analysis of Inor- E-2
ganic Substances.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 999.

Abstract: zidine acetate solution. For the determination of Mo is used a mixture (1:1:1) of 0.5 M sodium potassium tartrate, 0.5 M ammonium citrate and a 5% solution of $(\text{NH}_2)_2\text{C}_2\text{O}_4$ are used as the electrolyte; Mo is determined by a successive treatment with a 10% solution of potassium ethyl xanthogenate and 10% HCl. Ten percent HNO_3 serves as the electrolyte for V; the vanadyl is acidified with a 5% KMnO_4 solution to V^{5+} , and then is treated consecutively with 5% SnCl_2 and $\text{C}_6\text{H}_5\text{NH}_2$ solutions. In all of the cases, the current density was 20 ma/cm.²; voltage was 1.5 mv.; the duration of electrographic analysis was 60

Card 3/4

YUGOSLAVIA / Analytical Chemistry. Analysis of Inorganic E-2 Substances.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 999.

Abstract: diphenylcarbide solution (followed by treatment with 5% acetic acid). In the Ni determination, the electrolyte used is a mixture (1:1:1:2) of 5% $(\text{NH}_4)_2\text{S}_2\text{O}_8$, 5% NaF, 0.5M sodium potassium tartrate and 5% tartaric acid solution; Ni^{2+} is determined with a 2% dimethylglyoxime solution. For the determination of Co, 2N solution of ammonium acetate and as the reagent a 2% solution of α -nitroso- β -naphthol are used. For the determination of Mn a 0.5M solution of sodium potassium tartrate serves as an electrolyte; prior to the determination, Mn is converted into a cyanide complex by treatment with a mixture of 1% solutions of KCN and NH_4OH , is acidified by 5% H_2O_2 to Mn^{4+} and then is determined with 1% ben-

Card 2/4

YUGOSLAVIA / Analytical Chemistry. Analysis of Inorganic E-2 Substances.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 999.

Author : Krajovan - Marjanovic, V., Hlavaty, M., Habekovic, ~~Mr.~~ Cukovic, V.

Inst : ~~Not given.~~ ~~U.S. Army Research Office, Durham, N.C.~~

Title : The Electrographic Method for Determining Alloying Elements in Steels.

Orig Pub: Kemija u industriji, 1958, 7, No 2, 33-38.

Abstract: Methods for the electrographic determination of Cr, Ni, Co, Mo and V in steels using Schleicher-Schull 576 and Whatman No 50 were developed. To determine 5-13% of Cr, a mixture of 0.5 M Na_2CO_3 [sic] and NaNO_3 (3:1) solutions is used as the electrolyte and as the reagent for CrO_4^{2-} — a 1%

Card 1/4

YUGOSLAVIA/Chemical Technology. Chemical Products and Their Appli- H-8
cation. Elements, Oxides, Mineral Acids, Bases, Salts

Abs Jour : Ref Zhur - Khim., No 24, 1958, No 82253

Author : Rozgaj S., Habekovic M.

Inst : -

Title : Flotation of Barite

Orig Pub : Tehn. pregl., 1956, 8, No 3, 33-39

Abstract : Review. Data pertaining to the economics and technology on the manufacture of barite are presented. Described are: minerals containing Ba; composition of Ba-ores and the floatational characteristics of other mineral components; the theory of barite floatation and structural peculiarities of Ba - minerals; effects of the adsorption of sodium oleate, liquid glass, ptt pulp [sic], granulometric mineral characteristics on the floatation. It is indicated that liquid glass may act as a depressing agent and lead acetate as a promoter. Optimum conditions for floatation of barite are presented.

Card : 1/1

HABEK, J.

reports to be presented at the 2nd Intl Congress on Catalysis, Paris, France, 4-9-Jul '60.

Poland

KARWOWSKI, B., SZALANSKI, M., and SZALANSKI-SZALANSKA, Z. - "Properties of nickel layers electrolytically hydrogenated in the presence of poisons" (Section II)

KIELANSKI, A., HERON, J., HABEK, J., and SZALANSKI, J. - "Electronic processes accompanying the catalytic dehydrogenation of alcohols on semiconducting oxide catalysts" (Section II)

HERZMANN, S. - "On the process of catalytic reaction of sulfur dioxide with acids in iron sulfate solution" (Section III)

KRAJN, A. - "Catalytic activity of nickel" (Section I)

LIPKA, B., TRZECIAPKOWICZ, K., and SZALANSKI, S. - "The gaseous phase transformation of a mixture of 3-picoline and 4-picoline in the presence of ammonia and air in a mixture of corresponding nitriles" (Section III)

MALINOWSKI, G., and KOSZCINSKI, T. - "Hydrogen transfer in gaseous phase between alcohols and compounds containing carbonyl groups" (Section I)

GRUBISKA, R., TRZECIAPKOWICZ, K., and CIEROSKI, St. - "Studies on electric conductivity and catalytic activity of copper catalysts in dehydrogenation of alcohols" (Section II)

SZALANSKI, J. - "Study of selectivity and activity of copper catalysts in dehydrogenation reaction" (Section III)

SZALANSKI, A., and SZALANSKI, J. - "Influence of dimensions of pores on the catalytic power of active carbon in the oxidation of sulfur hydrogen by oxygen" (Section II)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800047-6

HABE, France; HRIBAR, France

Sajevsko Polje. Geogr vest 36:13-49 '64 [publ. '65].

HABE, F.

GEOGRAPHY & GEOLOGY

HABE, F. Prvi jugoslovanski kongres, Postojna 21.-24. 1. 1954 (First Yugoslav Speleological Congress, Postojna, January 21-24, 1954); a book review. p. 378. Vol. 27/28, 1955/56 (published 1957).

Monthly List of East European Accessions (EEA) Vol. 11, No. 2.
April 1958 Unclass.

HABE, F.

GEOGRAPHY & GEOLOGY

HABE, F. The activity of Slovenian speleologists from the first Yugoslav speleological congress in Postojna onward. p. 343. Vol. 27/28, 1955/56 (published 1957).

Monthly List of East European Accessions (MEAL) Vol. 11, No. 2.

April 1959 Unclass

HABE, F.; HRIBAR, F.

Exploration of the outflow siphon of the Pivka River in the Pivka Cave.
p. 167; Slovenska akademija znanosti in umetnosti. Institut za
raziskovanje krasa. POROCILA. ACTA CARSOLOGICA. Ljubljana; Vol. 1,
1955.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, No. 12, December 1956.

HABE, F.; HRIBAR, F.; STEFANCIC, P.

Habe's Chasm. p. 25; Slovenska akademija znanosti in umetnosti. Institut za raziskovanje krasa. POROCILA. ACTA CARSOLOGICA. Ljubljana; Vol. 1, 1955.

SOURCE: East European Accessions List (EEAL), Library of Congress, Vol. 5, No. 12, December 1956.

HARE, F.; HRIBAR, F.; SAVNIK, R.

Underground world of the karstic plateau of Prestranek and Slavina.
p. 91; Slovenska akademija znanosti in umetnosti. Institut za
raziskovanje krasa. POROCILA. ACTA CARSOLOGICA. Ljubljana; Vol. 1,
1955.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, No. 12, December 1956.

HABE, F,

HABE, F. Krk Island.

p. 19

THROUGH YUGOSLAVIA

Vol. 4, no. 1, Mar. 1955

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LV, Vol. 4, no. 9,
Sept. 1955, Uncl.

HABE, F.

HABE, F. Rijeka, the transit tourist center. In English

p. 18
THROUGH YUGOSLAVIA
Vol. 4, no. 1, Mar. 1955

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (FEAL), LC, Vol. 4, no. 9
Sept. 1955, Uncl.

HABE, F.

HABE, F. The Karst, a region of marvelous beauty between the Alps and the Adriatic. In English

p. 16
THROUGH YUGOSLAVIA
Vol. 4, no. 1, Mar. 1955

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, Vol. 4, no. 9,
Sept. 1955, Uncl.

ILLEGIBLE

ILLEGIBLE

POLAND

HABCYNSKA, Danuta and SZCZUREK, Zbigniew, Department of Pathological Anatomy (Zaklad Anatomii Patologicznej), Sl.AM [Slaska Akademia Medyczna, Silesian Medical Academy] in Zabrze (Director: Prof. Dr. W. NIEPOLOMSKI)

"Early Embryo Tumors of the Ovary. Report of Two (2) Cases." Warsaw, Polski Tygodnik Lekarski, Vol 18, No 17, 22 Apr 63, pp 601-603.

Abstract: [Authors' English summary] Authors report two cases of very rare ovary tumor, arising in the early embryonal period, i.e, embryonal cancer and malignant teratoma. Of the ten (10) references, five (5) are Polish, one (1) Italian, and four (4) English.

1/1

SAMOCHOWIEC, Leonidas; HABCZYNSKA, Danuta; WAZNA-BOGUNSKA, Czeslawa

Effect of the atherogenic diet and of *Cynara scolymus* L. and *Cynara cardunculus* L. on the histopathological picture of coronary vessels and myocardium in rats. Pat. pol. 13 no.3:337-348 '62.

1. Z Zakladu Farmakologii Sl. AM w Zabrze-Rokitnicy. Kierownik: doc. dr med. T. Chrusciel Z Zakladu Anatomii Patologicznej Sl. AM w Zabrze. Kierownik: prof. dr med. W. Niepolomski.

(DIET)	(ARTERIOSCLEROSIS)	(MYOCARDIUM)
(CORONARY VESSELS)		(VEGETABLES)

HABCZYNSKA, Danuta; DYACZYNSKA, Anna

Testicular mesothelioma. Pol. tyg. lek. 19 no.25:961-962
15 Je'64

1. Z Zakladu Anatomii Patologicznej Sl. Akademii Medycznej
w Zabrze (kierownik : prof. dr. Witold Niepolomski) i z II
Kliniki Chirurgicznej Sl. Akademii Medycznej w Zabrze (kierow-
nik: prof. dr. Jozef Gasinski).

WIERUSKI, Jerzy; Warszawa, Poland

Polycystic kidney (ren multilocular). pol. typ. lek. 17 no.14:
522-523 30 Mar '64.

1. Z Oddziału Urologicznego Szpitala Specjalistycznego nr 7 w
Katowicach (ordynator: dr. J. Zieliński) i z Zakładu Anatomii
Patologicznej Szl. Akademii Medycznej w Lublinie (kierownik: prof.
dr. W. Niepodoleński).

Polarography of titanium...

S/081/62/000/006/025/117
B171/B101

the reduction of Ti(OH)SO_4^+ complex and the third to the reduction of the $\text{Ti(OH)}_2\text{SO}_4^{2+}$ complex ion. The oxidation of Ti^{3+} , in the same solutions, produces only one wave. See also RZhKhim, 1961, 13B673. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/006/025/117
B171/B101

AUTHOR: Habashy, G. M.

TITLE: Polarography of titanium. I. Sulfato complexes of trivalent and tetravalent titanium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 76, abstract 6B525 (Collect Czechosl. Chem. Commun, v. 25, no. 12, 1960, 3166-3172)

TEXT: When TiO^{2+} ion is reduced at the dropping mercury electrode in a support solution of HClO_4 , only one wave is formed, while in H_2SO_4 and $(\text{NH}_4)\text{HSO}_4$ solutions three waves are observed, which merge one in the other as the concentration of SO_4^{2-} ions increases. On the grounds of investigations on the dependence of $E_{1/2}$ and of the wave height of the H^+ and SO_4^{2-} ion concentrations, it has been deduced that the first wave corresponds to the direct reduction of TiO^{2+} to Ti^{3+} , the second wave to

Card 1/2

HABARTA, F.; CECH, A.

Hydrostatic drive of mowing machines. Strojitrenstvi 14
no. 3: 230-233 Mr '64.

1. Research Institute of Agricultural Machines, Uhetov
u Prahy.

JABARCA, Frantisek; GECU, Antonin

Hydrostatic drive of cutter bar. Zemedel tech 9 no.4:335-350
Ag'65.

1. Vyzkumny ustav zemedelskych stroju, Chodov u Prahy.

HABARTA, F.

"The D272, a new type of wheel tractor made by Allis Chalmers Works."

p. (3) of cover (Zemelske Stroje, Vol. 3, no. 1, Jan. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9,
September 1958

HABARTA, F.; MEKYSKA, T.

"The Zetor tractors at the 3d Exhibition of Czechoslovak Engineering in Brno."

p. 178 (Zemedelske Stroje) Vol. 2, no. 8, Aug. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EMAI) LC. Vol. 7, no. 4,
April 1958

HADARTA, F.

Testing tractors and some new novelties in the tractor industry in England. II

p. 44 (Zemelske Stroje) Vol 2, no 2, Feb. 1967 Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, -Vol. 7, No. 1, Jan. 1968

HABARTA, F.; STEJSKAL, J.

Testing tractors and some novelties in the tractor industry in England. 1.
(To be contd.) p. 22. (ZEMEDLSKE STROJE, Vol. 2, No. 1, Jan 1957, Praha,
Czechoslovakia)

SO: Monthly List of East European Accessions (MEAL) IC, Vol. 6, No. 12, Dec 1957. Uncl.

HABARTA, F.

Development of tractors in Czechoslovakia and abroad.

F. 390. (AUTOMOBILI) (Praha, Czechoslovakia) Vol. 1, no. 12, Dec. 1957

SO: Monthly Index of East European Accession (EEAI) IC Vol 7 No. 5, May 1958

HABART, Vaclav, inz.

Comment on the article "New mallets and pans for suspension insulators in Czechoslovakia". Energetika Cz 13 no.2:106 F '63.

1. STE Praha.

HABART, Karel

Are the rates of bonuses and penalties for loading of freight cars,
applied by the Czechoslovak Railways, fair? Zel dop tech 9 no.12:
374-375 '61.

HABARDA, Dusan, inz.

Series-parallel direction of the T II streetcars. Doprava no.4:
289-290 '63.

HABARDA, Dusan, inz.

Electric current flow through axial bearings of the T II street cars for 100 mm rail gauge. Doprava no.1:57-62 '63.

HABARDA, Dusan, inz.

Use of the rectilinear diagram in local transportation. Doprava no.11:
385-387 '60.

The Atom and Nuclear Engineering

CZECH/2404

Tunnel effect	275
Speed of thermonuclear reactions	275
Hydrogen bomb	276
Electric discharge in gas	278
Effects of discharge	279
Accelerators as possible boosters of thermonuclear re- actions	279
Hydrogen [electric] power plants	280

AVAILABLE: Library of Congress

Card 12/12

TM/ec
10-12-59

The Atom and Nuclear Engineering

CZECH/2404

Effect of radiation on cells	243
Effect of radiation on tissues	244
Genetic effects of radiation	245
Permissible doses of irradiation	246
Lethal doses of irradiation	247
Safety measures	247
Radiation injuries in man	248
Development of radiation sickness	250
Sources of radiation injuries in man and protective measures	252
XII. Use of Isotopes in Agrobiological and Forestry Research (Václav Myslivec, Doctor, Professor, Member of the Czechoslovak Academy of Sciences)	255
Use of the radioisotope P 32	259
Radioisotopes for uncovering the secret of photosyntheses	262
Radioactive carbon in agrobiology	267
XIII. Thermonuclear Reactions (M. Kulka, Engineer)	272
Heat as a promoter of reactions	273
Card 11/12	

The Atom and Nuclear Engineering

CZECH/2404

Study of metal diffusion, alloy structure and disintegration of elements	223
Control of metallurgical processes	225
Other uses of radioisotopes	226
Prospects for the Use of Radioisotopes in the Czechoslovak Republic	227
X. Use of Artificial Radioisotopes in Medicine (Zdeněk Hlasivec, Doctor of Medicine)	229
Significance of the chemical properties of radioisotopes in internal therapy	229
Radioisotopes for internal therapy	231
Effect of radioisotopes applied externally	235
Radioisotopes for external application	237
Radioisotopes for infiltrating roentgenoscopy	240
XI. Biological Effects of Ionization: Radiation Injuries (Zdeněk Hlasivec, Doctor of Medicine)	242
Basic effects of radiation on the biochemical processes in living organisms	242

Card 10/12

The Atom and Nuclear Engineering

CZECH/2404

Atomic submarine "Nautilus"	189
Submarines for Arctic regions	193
Atomic icebreaker	194
Atomic cargo vessels	194
Atomic locomotive	196
Nuclear propulsion for automobiles	199
Atomic-powered engines for aircraft	200
From jets to interplanetary rockets	203

IX. Radioisotopes and Their Use in Industry (J. Kuba, Doctor of Natural Sciences, Winner of State Prize)

Production of Radioisotopes	204
Radiation Properties Applicable to Technology	206
Energy of radiation	208
Specific activity	211
Use of radioisotopes in technology	212
Flaw detection by radioisotopes	213
Radioisotopes in measurement	218
Checking of metalworking tools by radioisotopes	220
Checking wear of machine parts	221

Card 9/12

The Atom and Nuclear Engineering

CZECH/2404

Harwell-- world -- famous atomic university	160
Calder Hall -- first British atomic power station	160
Other atomic power projects in Britain including gas-cooled plants	163
From Calder Hall to Dounreay	163
Use of nuclear energy in the United States	165
First industrial atomic power station in the United States	166
The PDP nuclear power project	167
The Package-type and the pocket-type nuclear power plants	169
"Baby reactor"	170
Atomic batteries	171
Technological advances in atomic power generation	172
VIII. Atomic Power in Transportation (Jan Tůma, Engineer)	183
Use of Nuclear Propulsion in Transportation	184
Selection of nuclear-power systems for transportation vehicles	185
Nuclear propulsion in marine transportation	189

Card 8/12

The Atom and Nuclear Engineering

CZECH/2404

Granite and sand - the fuel of the future	131
Conversion of heat into energy	
Use of compressed gas	133
Use of water or deuterium under pressure	134
Use of melted metallic elements	134
Steam-power reactors	138
Use of gas turbines	139
Power-industry requirements of reactor designs	139
Fuel supply for atomic power stations	141
Waste removal from atomic power stations	142
Protection against radiation	
Safety devices in atomic power stations	144
Cost of atomic power production	146
VII. World Progress in Atomic-Power Development (Jan Tůma, Engineer)	149
First Experimental Atomic Power Stations	153
First Soviet atomic power station	153
Large Soviet atomic power projects	155
Nuclear power generation in Great Britain	159

Card 7/12

The Atom and Nuclear Engineering

CZECH/2404

Plutonium 239	102
Regeneration of Nuclear Fuel [by using an organic solvent]	104
Other methods of regeneration	107
V. Nuclear Reactors (Zbyněk Hrdlička, Engineer)	108
Principles of Nuclear Reactors	108
Thermal reactor	108
Fast reactor	110
Classification of types of reactors	111
Classification of reactors according to purpose	111
Research reactor	111
Reactors aiding the solution of certain basic problems	112
Reactors aiding the solution of certain special problems	118
Reactors for the production of fissionable material	125
Reactors for the generation of energy	126
Reactors for the production of both energy and fissionable material	126
VI. Nuclear Engineering (Jiří Havelka, Engineer)	130

Card 6/12

The Atom and Nuclear Engineering

CZECH/2404

Nuclear Reactions	72
Discovery of nuclear fission	74
Physical explanation of fission	76
Delayed neutrons	80
Energy released by fission	81
Passage of neutrons through a medium	83
Fast-neutron reactions	83
Medium-energy neutrons	84
Slow neutrons	85
Resonance neutrons	86
Thermal neutrons	87
Chain reaction and critical size	88
Reactor start-up and regulating system	94
IV. Preparation and Regeneration of Nuclear Fuel (Václav Kourim, Engineer)	97
Natural uranium	98
Separation of uranium from ore	99
Production of U^{235}	101
Uranium 233	102

Card 5/12

The Atom and Nuclear Engineering

CZECH/2404

used in nuclear physics	
Use of ionization for physical measurements	46
Cloud chamber	48
Ionization chamber	49
Gelger-Müller counters	49
Scintillation counters	50
Nuclear emulsion	51
II. Accelerators of Charged Particles	52
(J. Habanec, Doctor)	
Main Types of Accelerators and Their Characteristics	58
Linear accelerators	58
Circular accelerators	59
First Czechoslovakian cyclotron	62
Synchrocyclotrons	63
III. Liberation of the Energy of Atomic Nucleus (M. Voříšek,	
Graduate in Physics)	69
Energy of Chemical Reactions	69

Card 4/12

The Atom and Nuclear Engineering

CZECH/2404

What spin means	23
Electron shell structure	24
Matter and energy	
Interaction of substances	27
Corpuscular properties of light	28
Interrelation of energy and mass	29
Atomic nucleus	
Structure of nucleus	33
Bond energy	34
Bombardment of atomic nucleus	36
Emissions from the atomic nucleus	38
Alpha radioactivity	38
Beta radioactivity	39
Gamma radiation	39
Models of atomic nuclei	39
Elementary atomic particles	
"Classical" elementary particles	40
New elementary particles	42
Discovery of the antiproton and antineutron	45
Fundamental measuring instruments	

Card 3/12

The Atom and Nuclear Engineering

CZECH/2404

instrumentation. Operating and planned nuclear power installations are described. A short chapter is devoted to the possibility of using nuclear power in transportation. The remaining chapters report on radioisotopes for industry, and on radiology, radiation hazards and safety measures. No personalities are mentioned. There are 25 references, all Czech.

TABLE OF CONTENTS:

Introduction	5
I. Studying the Structure of matter (Ivo Chudáček, Graduate in Physics)	7
The world of atoms and molecules	7
Atom "sounding" by alpha particles	16
The hydrogen atom	18
Wave properties of the basic constituents of an atom	20
Quantization of physical values	22

Card 2/ 12

21(3,4)

PHASE I BOOK EXPLOITATION

CZECH/2404

Habanec, V., Doctor; J. Havelka, Engineer; Zd. Hlasivec, Doctor of Medicine; Zb. Hrdlička, Engineer; I. Chudáček (Graduate in Physics); V. Kouřim, Engineer; J. Kuba, Doctor of Natural Sciences; V. Myslivec, Professor; Jan Tůma, Engineer; and M. Voříšek (Graduate in Physics)

Atom a jaderná technika (The Atom and Nuclear Engineering)
Praha, Naše vojsko, 1957. 290 p. (Series: Universita vojáka) 4,000 copies printed.

Reviewers: Bittner, Engineer; Drška, Engineer; Hrdlička, Engineer; Kulka, Engineer; Spurný, Doctor; and Šimáně, Engineer; Ed.: Stanislav Vobořil.

PURPOSE: The book is intended for the general reader.

COVERAGE: The book outlines the principles and operation of nuclear power plants and the use of radioisotopes. The introductory chapters cover the fundamentals of nuclear physics and radioactivity. Several subsequent chapters deal with reactor physics, types of reactors, their engineering, control and

Card 1/12

L 18527-66
ACC NR: AP6010229

work substantially supplement the individual data of other authors. At the present time the obtained data are being analyzed on the basis of the characteristics of the levels of the N-13 nuclei. [JPRS]

SUB CODE: 20 / SUBM DATE: none

Card 1/2

UDC: 539.171.018: 539.172.12: 546.26.02

7C

L 18527-66 EWT(m)/EWA(h)

ACC NR: AP6010229

SOURCE CODE: CZ/0038/65/000/004/0144/0144

AUTHOR: Bem, Pavel; Habanec, Josef--Gabanets, Y.; Karban, Oldrich; Nemec, Jan-- 46
Nemets, Y.; Presperin, Vlastislav 3

ORG: Institute of Nuclear Research, CSAV, Rez (Ustav jaderného výzkumu CSAV)

TITLE: Measurement of the angular distribution of the polarization of protons in the reaction C-12 (p, p) C-12 in the energy region of 6.0 - 6.8 Mev

SOURCE: Jaderna energie, no. 4, 1965, 144

TOPIC TAGS: proton polarization, elastic scattering, angular distribution, cyclotron, silicon, carbon, particle detector, particle accelerator target

ABSTRACT: INR Report No. 1064/64, published in Jaderna Energie only as Czech and Russian summaries (modified): The angular distribution of the proton polarization during elastic scattering was measured at six values of the energy in the region of 6.0-6.8 Mev. The energy source was the INR 120-cm cyclotron at Rez. The energy of the protons was reduced by means of aluminum and carbon films. The degree of polarization of the scattered protons was determined by the right-left asymmetry of the secondary scattering on the carbon target of the analyzer. The particles were registered by silicon detectors with a surface barrier. The results of the

Card 1/2

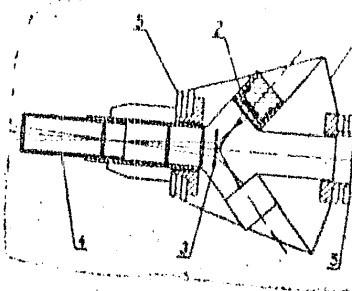
REF. K. S. BARNARD, *Q. J. Math.*, **4**, 1953, 101-111. (1953) 101-111. 11

Measurement of some distribution of β in π^+p reaction in $0.4-0.6$ GeV π^+ reaction in $0.4-0.6$ GeV range energy. β is the ratio of the number of π^+ to the number of π^- .

1. Intersection of the two planes is the line of intersection of the two planes.

ACCESSION NR: AP4040787

ENCLOSURE: 01



Card 3/3

ACCESSION NR: AP4040787

selected because of their low sensitivity to gamma and neutron phonons. To guarantee reliable operation over a period of several days the detectors were cooled to -10 to -30 C. A diagram of the polarimeter is shown in Enclosure 1. In view of the few data available for scattering on a carbon target, the authors checked the polarimeter in a triple calibration test which is outlined in detail. P_{eff} varied from -0.45 at 4.5 MeV to -0.85 at 6.0 MeV. They then employed the polarimeter to measure angular distribution at energies of 6.0, 6.3, and 6.7 MeV; for the last energy the distribution showed minima of $P(40_{lab} \text{ deg}) = 0.56 \pm 0.03$ and $P(100_{lab} \text{ deg}) = -0.88 \pm 0.06$ and a maximum of $P(70_{lab} \text{ deg}) = +1.03 \pm 0.04$. The angular distribution for all three energies at the limiting scattering angles is shown in a diagram. "In conclusion the authors express their thanks to Dr. Z. Trousil for graciously making the semiconductor detectors available; also, to the cyclotron staff for maintaining its operation under difficult conditions; finally, to comrades F. Benda and K. Puts for solving certain technical problems." Orig. art. has: 3 formulas, 7 figures, and 1 table.

ASSOCIATION: Institute of Nuclear Research, Czechoslov. Acad. Sci., Rez

SUBMITTED: 19Oct63

SUB CODE: NP

DATE ACQ: 00Jun64

NO REF SOV: 000

ENCL: 01

OTHER: 012

Card 2/3

ACCESSION NR: AP4040787

Z/0055/64/014/006/0404/0410

AUTHOR: Bem, P.; Habanec, J.; Karban, O.; Nemec, J.; Presperin, V.

TITLE: Measurement of the polarization of 6.7 MeV protons during scattering on carbon

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 6, 1964, 404-410

TOPIC TAGS: polarimeter, carbon polarimeter, proton polarization, proton scattering

ABSTRACT: One of the problems in measuring the polarization of scattered particles on the basis of left-right asymmetry is the necessity of trading off rapid counting for precision. The authors have designed a polarimeter of simple design in which the use of a thick target (carbon 12) makes it possible to increase the counting rate without loss of accuracy, provided the effective polarization P_{eff} can be determined with satisfactory exactness. C^{12} was chosen because, of the three particles H^3 , H^4 , and C^{12} with a high degree of polarization at energies of 6.7 MeV or less, only the last retains this feature at small scattering angles (about 50 deg). Proton recording is accomplished in the device by silicon surface-barrier detectors with an effective surface diameter of 10 mm; these detectors were

Cord 1/3

246600

Z/055/62/012/009/002/003
I046/I246

AUTHORS Bém, P., Habanec, J. J., Karban, O. and Němec, J.

TITLE Polarization of protons scattered elastically on carbon

PERIODICAL Chekhoslovatskiy fizicheskiy zhurnal, v 12, no. 9, 1962, 660-664

TEXT The polarization of protons scattered elastically on two carbon targets was measured for a cyclotron proton beam accelerated to 6.5 MeV. The angular distribution in the energy interval from 3.60 to 4.52 MeV was as follows: $P(40^\circ_{\text{lab}}) = 0.30 \pm 0.05$; $P(45^\circ_{\text{lab}}) = 0.36 \pm 0.07$; $P(50^\circ_{\text{lab}}) = 0.33 \pm 0.06$; $P(60^\circ_{\text{lab}}) = 0.20 \pm 0.05$. The results after scattering on one target are in good agreement with those given by Warner, R. E. and Alford, W. P. (Ref. 6, Phys. Rev., 114 (1959), 1338). There are 4 figures and 1 table.

✓A

ASSOCIATION Institut yadernykh issledovaniy ChSAN (Institute of Nuclear Research Czechoslovak AS, Rzheshh)

SUBMITTED October 20, 1961

Card 1/1